CALIFORNIA DIVISION OF MINES AND GEOLOGY

Supplement to FER-68

San Jose and Walnut Creek faults

Aerial Photography Study

March 20, 1978

Photography

Designation: Fairchild C-300

Type: Vertical, stereo, black and white

Scale: 1:18,000

Date flown: 1928

Coverage: This photo set covers approximately the southern 60 percent of Los Angeles County. It extends eastward to the Los Angeles- San Bernardino County line. It covers all of the San Jose Hills area.

Availability: Fairchild aerial photo collection, Geology Department, Whittier College, Whittier, California.

Interpretations

I see no direct evidence for the existence of the Walnut Creek fault. That is to say, the existence of the San Jose Hills raises the possibility that the uplift is fault bounded on the northern side, but there is no geomorphic evidence of a more specific nature for the existence of the fault.

The same can be said for the San Jose fault, except where the fault cuts Tertiary rock at the surface. In these areas, especially in the area south of Buzzard Peak (western part of figure 4b), the fault is characterized by erosional features such as notched ridge spurs. These features appear to have been generated only by the weaker erosional resistance of the fault zone. I observe no fault scarps or

fault-line scarps, and no evidence of fault-caused rejuvenation of drainage downcutting.

Olmsted (1950, plate 23) shows two faults, each about two km in length, at the extreme western end of the San Jose Hills (southern part of figure 4c). I see no direct evidence for the location or existence of either of these faults.

Recommendations

I recommend that no further effort, field work or otherwise, be expended on these faults. I recommend no zoning.

Investigating geologist's name and date:

Drew P. Smith

DREW P. SMITH
Geologist
March 20, 1978

I concur with this recommendation
EWH
3/31/78